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Time Perspective in Suicidal Patients: Transient State Or Trait?

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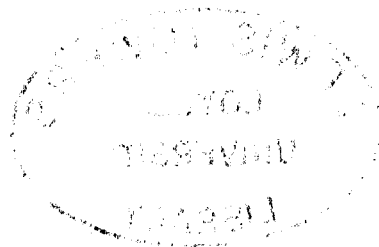
TIME PERSPECTIVE IN SUICIDAL PATIENTS:
TRANSIENT STATE OR TRAIT?

by
Michael F. Flynn

A Dissertation Submitted to the Faculty of the Graduate School
of Loyola University of Chicago in Partial Fulfillment
of the Requirements for the Degree of
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VITA

The author, Michael Francis Flynn, is the son of the late Michael Flynn and Mary Ellen (Lydon) Flynn. He was born December 2, 1935, in Chicago, Illinois.

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TABLE OF CONTENTS

	Page
ACKNOWLEDGMENTS	ii
VITA	iv
LIST OF TABLES	vii
LIST OF FIGURES	ix
CONTENTS OF APPENDICES	x
INTRODUCTION	1
REVIEW OF THE LITERATURE	4
RATIONALE	15
METHOD	20
Procedure	20
Subjects	24
Instruments	25
RESULTS	33
DISCUSSION	58
SUMMARY	69
REFERENCES	71
APPENDICES	79

LIST OF TABLES

Table	Page
1. Composition of Experimental and Control Groups according to Variables Controlled for	23
2. Mean Present Scores and Standard Deviations at Test and Retest for Experimental and Control Groups.	39
3. Mean Future Scores and Standard Deviations at Test and Retest for Experimental and Control Groups.	40
4. Mean Past Scores and Standard Deviations at Test and Retest for Experimental and Control Groups.	41
5. Mean Total Scores and Standard Deviations at Test and Retest for Experimental and Control Groups.	42
6. Mean Years Projected and Standard Deviations at Test and Retest for Experimental and Control Groups.	43
7. Analysis of Variance of Present Scores. . .	44
8. Analysis of Variance of Future Scores . .	45
9. Analysis of Variance of Past Scores . . .	46
10. Analysis of Variance of Total Scores. . .	47
11. Analysis of Variance of Years Projected .	48
12. F Values and Probability Levels of Tests for Simple Main Effects	50

LIST OF TABLES

Table	Page
13. Time Questionnaire Mean Scores for the Two Groups at Test and Retest and the Differences between Means for the Five Variables	55

LIST OF FIGURES

Figure	Page
1. Mean Present Scores at Test and Retest for Experimental and Control Groups. . .	34
2. Mean Future Scores at Test and Retest for Experimental and Control Groups. . .	35
3. Mean Past Scores at Test and Retest for Experimental and Control Groups.	36
4. Mean Total Scores at Test and Retest for Experimental and Control Groups.	37
5. Mean Years Projected at Test and Retest for Experimental and Control Groups. . .	38

CONTENTS FOR APPENDICES

	Page
APPENDIX A Rating for Life-threatening Behavior	79
I. Risk-Rescue Rating	80
II. Chart for Computation of Risk-Rescue Scores	81
III. Risk-Rescue Factors	82
APPENDIX B Brief Psychiatric Rating Scale.	86
APPENDIX C Roos' Time Measure	90
I. Time Reference Inventory	91
II. Scoring Summary	96
APPENDIX D Yufit's Time Measure	97
I. Administration of Yufit's Time Questionnaire	98
II. Time Questionnaire Cover Sheet	100
III. Time Questionnaire & Sample Scoring.	101
IV. Score Sheet for Time Questionnaire.	106
APPENDIX E Rating Scale for Seriousness of Suicidal Ideation	107

CHAPTER I

INTRODUCTION

That suicide is a national problem in terms of incidence (one every 28 minutes in the United States), its consequent loss of potentially productive lives and its impact on the families and friends of the suicides hardly needs documentation (Farber, 1968). Reflective of the acuity of this problem is the fact that, since 1957, more than 1200 books on suicide have appeared, countless journal articles have been written, and one journal dedicated totally to suicide has emerged (Foote, 1972). Most of these publications are technical, prepared by (and for) sociologists, psychologists, and suicidologists working in the 300 suicide prevention centers now operating around the country. Paul Pretzel, a suicide prevention counselor, says that at the Los Angeles Suicide Prevention Center (one of the nation's oldest) about 9,000 calls are received each year; he estimates that 15% of these are rated "high risk." This judgment of "high risk" continues to be a problem for the

serious suicidologist, psychologist, or counselor. Since this judgment is so critical, much work has been done to make this judgment more reliable and certain.

In spite of years of training and clinical experience and a plethora of published research data, validly assessing the suicide potential of an individual continues to be a difficult task. More than many other psychological phenomena, the processes by which people become suicidal are very complex and unique. Heightened suicide risk is considered to be associated with depression in general, and with specific difficulties such as inadequate interpersonal skills (Fawcett & al., 1969). But the variability among diagnostic groups, as well as within groups, in the processes by which these difficulties occur is not only overdetermined and difficult to isolate, but often unpredictable. Indeed, in many cases, a precipitant seems almost ludicrous (Menninger, 1938). In others, the precipitating event leading to a depression or other major psychiatric illness is clearly evident and "understandable." In no case, however, are all the factors known; nor do they duplicate any other seemingly similar set of circumstances. Thus, it is safe to say that, as far as present knowledge goes, there is no personality structure or dynamic which can be labeled "suicidal," such as can be done with schizophrenia, depression, and

the major character disorders. Rather the factors which are presently assumed to be associated with heightened suicide potential are largely covert rather than overt, difficult to identify and isolate, and thus often unpredictable. As such they constitute a rather unique, but important, challenge to the practicing clinician, the mental health educator, and the clinical researcher.

CHAPTER II

REVIEW OF THE LITERATURE

Attempts to assess and predict suicidal behavior have been of three general types:

1. the use of standard psychological assessment techniques,
2. the construction of clinical techniques specific to the task of evaluation of suicidal potential,
3. the use of personal history and psychiatric status data.

With few significant exceptions, the research thus far has not proven consistently fruitful.

Of the standard psychological techniques investigated (TAT, MMPI, Rorschach, Rosensweig Picture Frustration Test, Bender-Gestalt, Semantic Differential, and Brief Psychiatric Rating Scale), all except the Rorschach and the MMPI have either produced negative results or failed to hold up under replication (Lester, 1970).

Using profile analysis of the MMPI, Devries and Farberow

(1967) were successful at significantly differentiating threateners, attempters, completed suicides, and controls, and Devries and Schneidman (1967) established the reliability of MMPI profiles over time.

The Rorschach, however, shows more promise, perhaps primarily because much more work has been done with it. Research based on the Rorschach has investigated four different aspects of this technique: determinants and ratios, single signs, and content. Thus far, reliable data have resulted only from the study of single and multiple signs. Among these signs are: human movement characterized by animal content, and the combining of chromatic color and shading responses (Frederick, 1969). This last sign - the color-shading response - was first reported by Applebaum and Holzman (1962), and then replicated by Applebaum and Colson (1968). The finding was not replicated by Neuringer, Mc Evoy, and Schlesinger (1965) in a female population, however.

Piotrosky (1970) has just recently developed a Suicide Scale consisting of 14 signs which he feels may serve as criteria for distinguishing between future successful and unsuccessful suicidal behavior. Further data of Piotrosky's (1970) indicate a consistent Rorschach profile of patients who kill themselves within a year of the time when they were tested. Interestingly enough,

many of these response patterns parallel interpersonal skills which Fawcett (1969) has found to exist in the high-risk suicidal patient.

Somewhat more promising, as a group, are those techniques which have been devised specifically for the task of assessing suicide potential (Lester, 1970). First among these techniques was a sentence completion test constructed by Efrom (1960). However, four staff psychologists were unable to classify the data at a level better than chance into the three study groups (suicidal, assaultive, and non-suicidal). Based on the results of this study, it was concluded that it is doubtful that a sentence completion instrument alone can serve to reflect accurately suicide potential.

On the positive side, a cognitive task devised by Esler (1965) and a Potential Suicide Inventory Scale authored by Devries (1966) have showed initial success in differentiating suicidal from non-suicidal persons. The study by Esler (1965) consisted of asking suicidal and non-suicidal schizophrenics to rate 200 items (later reduced to 30, with the same results) on the basis of their importance. Suicidal patients indicated significantly fewer items as being important than did the non-suicidal patients.

Based on the critical incident technique, Devries

(1966) extracted from the literature all characteristics of suicidal individuals. These characteristics were then converted into 55 items which were administered to both suicidal and non-suicidal individuals. In both the original study and the two replications thus far reported, 13 of the original 55 items consistently differentiate the two groups significantly.

It has been observed by various investigators that, as a person becomes more suicidal, he sees less of a future for himself (Kastenbaum, 1959; Applebaum & Holzman, 1963; Farnham, 1964; Achte, Stenback, & Teravainen 1966; Vindoda, 1966; Farberow & Mc Evoy, 1966; Freeman, 1967; Wilson, 1968; Voth, 1969; Brockup, 1970; Melges & Weisz, 1971). Such findings are in harmony with Farber's Theory of Suicide (1968), which calls suicide a "disease of hope." According to Farber, "... when the life outlook is of despairing hopelessness ... suicide occurs (p. 12)." From a psychoanalytic point of view, Podolsky (1968) states the same idea more generally: "The efficiency of the time apparatus is an index of efficiency of the person as a whole (p. 141)." Thus, one might expect to find that one who is about to terminate his life (render his efficiency zero) would also show a particular flaw in his "time apparatus." Thus, Yufit (1970; in press) has investigated the time perspective of the serious risk suicide to

determine if this is indeed so. His method represents a novel approach to the assessment of suicide potential, via an instrument devised specifically to assess an area (time) considered to be theoretically related to suicide potential and it has shown promise in its ability to do so (1970). More attention to and description of this will be given later.

The third major approach to the identification of suicidal individuals has been through the systematic use of personal history data. Groups of items which successfully differentiate the suicidal from the non-suicidal individual (such as age, sex, marital status, early parental loss, recent loss, and previous attempts) have been compiled by Pokorny (1960); by Farberow and Mc Evoy (1966) at the Los Angeles Suicide Prevention Center; by Tuckman and Youngman (1968); by Dean et al. (1967); and by Wold (1968) - also of the Los Angeles Suicide Prevention Center. The information used in all these studies is based on data which are routinely secured by the therapist and/or social worker on admission. These studies primarily represent an attempt to more fully utilize data which are normally available (e.g., age, sex, race, marital status, employment status, self-report of the intent to die, etc.). Cohen et al. (1966) found fourteen of Tuckman and Youngman's (1963) indices to be valid

indicators of suicide potential in their study population. The remainder of Tuckman and Youngman's indices did not prove useful with Cohen's sample, however, while other variables which Tuckman and Youngman have found to be non-discriminant were found by Cohen et al. to be highly discriminant. It thus appears that no one set of criteria can be used for all patients and that further efforts in this area should be directed toward the establishment of criteria for specific patient groups based on diagnosis, socioeconomic status, and other relevant demographic variables (Lester, 1970).

One key element to be looked for in personal history data - and Fawcett (1969) considers it one of the most important for prediction and preventive treatment - is that of impaired capacity for interpersonal relating (Fairbank, 1932; Farberow & Mc Evoy, 1966; Rushing, 1969; Debries, 1968; Tuckman & Cannon, 1962; Seiden, 1966; Barter Swaback, & Todd, 1968). Rubenstein, Moses, and Lidz (1958) pointed out that suicide attempts of high lethality showed a lack of any interpersonal aim, whereas in those of low lethality interpersonal gains were clearly the object of the behavior.

A study by Fawcett, Leff, and Bunney (1969) indicated a high incidence of specific interpersonal characteristics in patients who made serious attempts at

suicide, which were independently recognized by other investigators: Interpersonal Incapacity - the inability to maintain warm mutual relationships with the consequence of poignant isolation (Wilson, 1968; Rosenberg & Latimer, 1966; Von Andics, 1947; Jan-Tausch, 1963; Reese, 1967; Applebaum & Colson, 1968), Marital Isolation - isolation in spite of appearance of marriage - (Straker, 1958; Litman, 1965; Ritson, 1968; Vinoda, 1966; Hatten, 1964; Goldberg & Mudd, 1968), Distorted Communication of Dependency Wishes, i.e., in a way that would not lead to support or gratification - (Bloom, 1967; Robins et al., 1959; Tabachnick, 1961; Litman, 1964; Darbonne, 1969), and Help Negation - the patient persistently withdraws from, terminates, or denies any help or relationships with significant others (Stoller & Estes, 1960; Farberow, Schneidman, & Neuringer, 1966; Mc Dowall et al., 1968; Mintz, 1961).

An approach to the assessment of suicide potential that has recently shown signs of promise is that of the Time Questionnaire developed by Yufit (1970) at Illinois State Psychiatric Institute (I.S.P.I.). He has been involved with a systematic plan of research with this tool. He and his colleagues have found in their pilot study that the more depressed, suicidal patients had a significantly different time perspective than did out-

patients and non-patient controls. For example, the clinical groups showed less orientation to the future, and were, in effect, more oriented to the past and the present, in this projective technique of time perspective. Benzies (1971) established the reliability of the instrument and helped to refine it, and replicated the results of the earlier study. Recent data (in press) also replicate earlier findings as they expand the clinical and control groups. It is significant that the data of these studies also were analyzed to control for the possible confounding effects of age, diagnosis, psychomotor retardation, and intensity of depression, so that their influence as likely contaminating elements was minimized.

Yufit's data indicate that high risk suicidal patients score significantly differently on his instrument from matched low risk and no risk patients and also from various diagnostic categories. For example, the instrument has distinguished between high risk suicidal and low risk suicidal depressed patients.

In light of what has been said about the assumption that there is no personality structure or dynamic that can be labeled "suicidal," it is interesting to speculate whether suicidal patients (high risk) always have a different time perspective, or whether - and this seems

more likely to this writer - their time perspective changes with the states that can be termed high risk, low risk, "or non-suicidal. That is to say, is their particular time perspective a trait of people who tend to become acutely suicidal, and therefore a stable characteristic of their personality, or indeed is this time perspective transient, i.e., caused by the same factors that create the suicidal crisis, and does it pass with the passage of the crisis event (s)? It is to this question that this research is addressed.

Suggestive of the latter hypothesis is Melges and Fougere's finding that time perception is variant with various emotional states (1966). Although he was dealing with psychotic patients measured during and after psychotic states, he did in effect find a difference. His findings are in no way probative, but they are suggestive, of the latter hypothesis.

One may also reason from some empirical data not directly concerned with the problem of change in time perspective. It has been noted in Yufit's research that a different time perspective was found in suicidals from that of outpatients and that of non-clinical controls. Although the latter two were not significantly different statistically, their mean scores on most measures varied in an expected direction, i.e., non-clinical controls

were more oriented to the future, less absorbed in the past, etc. One can find some confirmation of Podolsky's above-cited contention that the efficiency of the time apparatus is an index of the efficiency of the person as a whole.

Also, Yufit's data (1970, in press) reflect the results of Stein et al, (1966); Their study indicated that depressed patients project less into the future than do schizophrenics, and they, in turn, less than normals. His measure, The Future Events Test (Stein and Craik, 1965) consists of 36 items in which the subject is to project certain events - getting married, dying, etc. - into some future year. This same instrument has been used by other researchers to show differences of time perspective between delinquents and non-delinquents (Shybut, 1968; Wallace, 1965).

Roos and Albers (1965) used Roos' Time Reference Inventory (unpublished manuscript) to study the difference in time perspective between alcoholics and non-alcoholics. They found that the temporal orientation of the alcoholic is characterized by a short range view of the future and a perception of the past as satisfying and the present as depressing. This is interesting and germane in light of Menninger's concept of alcoholism as slow suicide (1938).

Foulks and Webb (1970), using the same Time Reference Inventory, compared time perspective on the basis of nosological categories of subjects (chronic schizophrenics, acute schizophrenics, depressed, alcoholics, and normals). They found that the depressed and alcoholic groups did not vary significantly on future extension, but both projected less into the future than did schizophrenics, and schizophrenics projected less into the future than did the normal group. These findings are in harmony with those of Roos and Albers (1965) and those of Yufit (1970; in press). Also, Foulks found that correlations for test-retest reliability within groups were generally high and significant.

CHAPTER III

RATIONALE

The purpose of the present study was to test the hypothesis that the time perspective of high risk suicidals is transient, related to their risk status, and not a permanent trait of their personality organization. As was described above, their time perspective is characterized by little orientation to the future, short future projection, and preoccupation with the past and present. Thus it was hypothesized that when the suicidal crisis passed and the patient was no longer high risk, the ability to project into the future, for example, would change in the direction of the non-clinical subject, i.e., he would project further into the future and see it as more hopeful.

In terms of Farber's (1968) theory of suicide, the possibility of suicide (S) is directly related to the strength of threat (T) and inversely related to the person's sense of competence (C), or, more generally stated, the possibility of suicide is inversely related to amount of hope (H). He states these relationships

in mathematical form thus: $S = \frac{T}{C} = \frac{1}{H}$. More simply, the greater the sensed threat and the less the feeling of competence, the more likely suicide will occur. For Farber, the concept of hope is the concept most closely and powerfully related to suicide: "Hope . . . entails confident expectation that a desired outcome will occur. The objects of hope and its level of intensity represent central determinants of human behavior. For man is a future-oriented animal, perhaps uniquely so. Much of his world is one of expectations . . . It is when the life outlook is of despairing hopelessness that suicide occurs (p 12)." Since hope, by its very nature, is related to future time perspective, one may say that the less hope there is, the less elaborate future one would conceive. One would then suspect that such a person would show this time perspective, in which he saw less into the future. Insofar as Farber does relate this concept of hope to threat, one would legitimately expect it to vary with the amount of stress or threat that a person may be feeling at the time.

Also, Lewin's field theory would lead us to predict that time perspective does change over time: "It is important to realize that the psychological past and the psychological future are simultaneous parts of the psychological field existing at a given time t. The time perspective is continually changing (italics mine).

According to field theory, any type of behavior depends on the total field, including the time perspective at that time ... (Lewin, 1951, p.54)." One would suspect that, as one's hope expanded, his vision into the future would also expand, and a time perspective closer to that manifested by a non-clinical population would result, i.e., he would see more of a future for himself.

Hence, it was important for the purposes of this study to evaluate this hypothesis. Lewin's theory states, rather than demonstrates, that time perspective is continually changing, and it does not specify the phenomenon in the case described here; a suicidal vs. a non-suicidal situation. It will be remembered that Melges and Fougere (1966) did demonstrate a shift in time perspective between the psychotic and non-psychotic state, but their measure was one of time perception: assessing time intervals between events.

It is critical to have available methods for determining both whether a given patient is a high-risk suicidal and when his high risk status has passed. This clinical judgment about a patient is crucial, and any instrument that may be helpful in making it more reliable is a great asset. But if one is going to use time perspective for a measure of suicidal risk, he must demonstrate that the time perspective does indeed change with the risk

status of the individual (high risk to low risk). Then one can proceed to quantify the degree of suicidal risk and to determine such things as cutoff scores for high risk status and the termination of high risk status.

Thus, in this research, it was hoped that the patients who are judged "high risk" would show a different measure of time perspective after the high risk had passed, compared to their scores during their high risk status. It must then be left for future research to further quantify degrees of risk, by establishing specific ranges of scores for different degrees of risk.

Hence, it was hypothesized that:

1. The experimental (suicidal) group will demonstrate a change of time perspective between time of admission (test) and time of retest (when patient is judged no longer a high risk suicidal). This change will be in the direction of the non-suicidal and will be operationally defined as a statistically significant higher score on the measure of time perspective at the time of retest.
2. The control group, will not exhibit as much change as the experimental group on the retest.
3. Of the scores comprising the total scores (present, future, and past), the greatest contrast between the experimental and control groups will be found in the future scores - that aspect of time perspective most closely related theoretically to suicide.
4. The control group will project further into the future (years projected) than will the experimental group at time of admission.

5. The experimental group will project further into the future at time of retest than at time of test (admission).

CHAPTER IV

METHOD

This research project involved a control and an experimental group. The experimental group consisted of thirty high-risk suicidal patients and the control group of low-risk or no-risk patients. The criteria for high-risk status were three:

1. Psychiatric hospitalization as a result of some life-threatening behavior.
2. A score of at least 50 on the Weisman and Worden Risk-rescue Rating Scale.
3. A positive or essential admission of intention to commit suicide.

To determine high-risk status of a given patient, the experimenter or another member of the Suicide and Depression Research Unit at Illinois State Psychiatric Unit (I.S.P.I.) talked to the patient and filled out the Risk-rescue Rating Scale (see "Instruments" below). If the patient received a rating of fifty or greater on this scale, he then was interviewed to ask his intention with regard to his life-threatening behavior. On the basis of this interview (See Intent-assessment Interview below), in conjunction with the score on the Rating, patients were assigned to the experimental, i.e., high risk suicidal group. Those who satisfied the three criteria listed above were administered

Yufit's Time Questionnaire (1970). Originally it was planned to administer Roos' Time Reference Inventory to the experimental and control groups, but because of the nature of the instrument (see Appendix C) and level of ego functioning of the experimental group, the data acquired were not susceptible to scoring and statistical analysis. It is composed of thirty items, like "The most important time in my life is the ..." The patient must check off "present, past, or future" and list the age at which the statement is, was or will be true, respectively. Eighteen of the protocols were unscorable because the patient omitted items or omitted the age or gave a span of years for the age. Hence, only Yufit's measure produced data that were scorable and capable of statistical analysis. More attention will be given to this fact in chapter four, "Discussion."

These initial procedures were done within one week of the subjects' admission to a psychiatric hospital or the psychiatric unit of a general hospital in the Chicago area. Also, at this time, the patient's therapist or the principal professional person in charge of the patient (henceforth to be referred to simply as therapist) filled out Overall and Gorham's Brief Psychiatric Rating Scale (1962). The therapist was requested to inform the experimenter when, in his judgment, the suicidal crisis was past. He was requested to use as a basis of this judgment a score of zero on the suicidal ideation rating scale (confer

below for description and rationale). At this time, the patient was readministered the two measures of time perspective. The therapist filled out the Brief Psychiatric Rating Scale on the patient again at this time.

The control group was composed of the same number (30) of psychiatric inpatients at I.S.P.I., judged to be non-suicidal if they rated zero on the suicidal ideation rating scale mentioned above. The basis of the therapist's judgment consisted of the data he obtained from his clinical diagnostic assessment of the patient. Therapists at I.S.P.I. may be psychiatrists, psychologists, or social workers or the psychiatric residents, psychology interns, or trainees who are supervised by them. The control group was equated with the experimental group, using group means, in age, sex, socioeconomic status, minority group identification, and level of pathology (on the basis of the Brief Psychiatric Rating Scale). Time between test and retest for the two groups was also similar. (See Table 1) The control group was administered the Time Questionnaire and the Brief Psychiatric Rating Scale within a week of their admission and again at a time that was equivalent for both groups. The Control Group was drawn from a larger population of 451 inpatients admitted to I.S.P.I. between March 1 and October 1, 1973. Psychosis did not exclude subjects from either group.

SUBJECTS: The control group was comprised of patients

TABLE 1

Composition of Experimental and Control Groups

	Experimental	Control
Sex	13 males 17 females	13 males 17 females
Age	Mean = 32.2 years S.D. = 10.14	Mean = 33.7 years S.D. = 10.62
Socioeconomic Status (U.S. Census Bureau Classification)	4 white collar professional 4 white collar managerial 4 blue collar skilled 1 blue collar unskilled 6 housewives 8 unemployed 3 students	4 white collar professional 4 white collar managerial 4 blue collar skilled 1 blue collar unskilled 6 housewives 8 unemployed 3 students
Ethnic Identification	24 Whites 5 Blacks 1 Mexican-American	24 Whites 5 Blacks 1 Mexican-American
Test-Retest Interval	Mean = 33 days S.D. = 22.91	Mean = 33 days S.D. = 22.89
Level of Pathology Score	Mean = 52.4 S.D. = 11.14	Mean = 51.63 S.D. = 11.18

drawn from the inpatient services of Illinois State Psychiatric Institute according to the criteria cited above. The experimental group was drawn from those admitted to several hospitals as a result of some life-threatening behavior. These hospitals consisted of I.S.P.I., Read-Chicago State, Madden, N.P.I. (Neuropsychiatric Institute of the University of Illinois), Riveredge, Loyola, Hines V.A., West Side V.A., Mercy, and Little Company of Mary. The voluntary cooperation of the patients was sought by explaining that this is a project in which we hope to understand more about the phenomenon of suicide, with the ultimate purpose of being better able to help people who may become prone to suicide.

An N of thirty high-risk patients was considered sufficient to give the necessary power to statistical tests to determine significant differences. The criteria for determining high-risk suicidal status have been discussed above and will be discussed under "Instruments" below. To make sure the procedures were not disturbing to the patients the researcher routinely asked their subjective reactions to the testing situation.

INSTRUMENTS:

The Risk-rescue Rating has been used by its authors, Weisman and Worden (1972) at Harvard for evaluating risk of suicide or lethality of attempt. Its underlying

hypothesis is that the lethality of implementation, defined as the probability of inflicting irreversible damage, may be expressed as a ratio of factors influencing risk and rescue. A suicide attempt of any kind involves some risk, but any attempt must take place in a specific set of circumstances, and so survival may depend on the resources for rescue as well as upon the specific form of the attempt. Following the above-cited research (Weisman and Worden, 1972), authors judged it "a good descriptive measure for discriminating between suicide attempts." It was also shown that the Risk-rescue Ratings done on 25 patients at the Massachusetts General Hospital Psychiatric Ward correlate .66 with an independent clinical judgment of the intent to kill themselves, made by a staff psychiatrist, and .60 with Beck's Medical Lethality Scale. For an N of 25 cases, a correlation greater than .49 would be significant at the .01 level. One of the principal reasons for the Rating's effectiveness is that calculation of risk and rescue factors are primarily related to reportable observations of what happened. By risk the authors mean the method used and the actual damage done in the attempt. By rescue they mean the observable circumstances and the available resources present at the time of attempt, excluding treatment. Thus, the ratio of risk to rescue is a balance of calculated factors related to the degree of irreversible damage and to

the resources that facilitate or hinder rescue.

These two factors, taken together, give one a judgment regarding the lethality of implementation, i.e., the estimated probability of inflicting irreversible damage from a given attempt and a measure of high-risk status.

In the Weisman and Worden research, interrater reliability coefficients were high: for risk score, .90 and .88; for rescue score, .94 and .78; and for risk-rescue rating, .95 and .93. Also, it was found that scoring could be easily taught to untrained people and is not subject to the vagaries of overall clinical judgments.

Intent-Assessment Interview: The Risk-rescue Rating provided some idea of intentionality in certain cases. If, for example, one is saved from death simply by accident, an unlikely event, then one can judge that the person most likely intended to kill himself. But this is not so clearly the case in all instances. Hence, an interview was given to ascertain lethality of intentionality. This interview covers the patient's subjective reactions to the events in question (life-threatening behavior). It covers those aspects that the literature suggests are most important in determining the nature of a suicide's intention. Thus,

the patient was asked exactly what he did intend to do, for the best known and most reliable indicators of suicide can be obtained by direct inquiry into the patient's suicidal intent (Pokorny, 1968; Farberow & McEvoy, 1966; Shein & Stone, 1969; Mintz, 1961; Murphy & Robins, 1968; Modlin, 1970; and Lieberman, 1970). If the patient gave a positive admission of intent, e.g., "I really meant to kill myself at the time," and this admission was accompanied by appropriate affect, then he was considered to have had the intent to end his life. On the other hand, if he gave a clear denial of intent, e.g., "No, I don't know what was on my mind. I must not have been thinking. I was just crying for help, I guess," he was eliminated from the experimental, suicidal group.

Since not all statements are so unambiguous, the interviewer may not be certain whether the patient did intend death, e.g., "Well, I guess I must have." Such ambiguous statements had to be clarified by exploring two areas strongly related to intent: a plan and the subjective reaction to rescue. Experience has shown that the more detailed the plan is, and the more lethal the method contemplated, the greater the likelihood of suicide (Litman, 1965; Redlich & Freedman, 1966; Brown & Pisetsky, 1960; Dorpat & Boswell, 1963; Arneson, 1971; and Beck, 1971). Hence the plan (forethought about the method and circumstances of the attempt) was explored with the pa-

tient. Also, his reaction to being saved was determined. It has been noted that the reaction to the one who intervenes in a suicide attempt is different according to the suicidal intent. Thus, those with high lethal intent feel disappointment and anger toward those who intervene rather than relief and gratitude (Oliven, 1951).

Thus, the intent-assessment interview will classify possible patients into four categories, the first two of which will qualify them for inclusion in the experimental group:

I. Positive admission of intent to end one's life (Yes, I really intended to kill myself. I meant to die; I couldn't take it any more.") This must be accompanied by seriousness of statement and appropriate affect.

II. Essential admission of intent, i.e., an equivocal expression ("I guess I did; it seems that way") that is clarified by the existence of a plan and a negative reaction to being saved. A plan is defined as forethought (as opposed to impulsive behavior) about the connection between his behavior and its goal (killing himself):

A. Belief that what he would do would end in death, e.g., "I thought at the time that ... pills would certainly kill me." "I figured that by cutting my wrist I would bleed to death quickly."

"Somebody once told me this is the best way to be sure to kill yourself . . ."

B. Thought to the circumstances (place, time) e.g., "I figured nobody would come in till it was too late." "Nobody comes to see me at that time of night." "I figured that by the time anybody found me it would be too late; then they'd be sorry."

C. Negative or surprised reaction to being saved, e.g., "I couldn't believe it when I came to in the hospital." "I was angry/disappointed when I came to (or was found)."

III. Doubtful intent, i.e., equivocal statement of intent which is not clarified as above: "It is hard to say, maybe I really wanted to die and maybe I didn't." "I really did not give it much thought - whether I would die or not." "I guess I should have known that my wife would come home from work at that time."

IV. Unequivocal denial of serious intent, "I didn't want to die; I just wanted my wife to know how miserable I was." "I think I knew that I would not die; I did not really want to."

Thus, only those patients who communicated a positive or essential admission of intention (categories I and II) qualified for inclusion in the experimental group.

Time Questionnaire: This instrument was discussed above in the "Review of the Literature." It is composed of different forms of items, including multiple choice, open-ended, and rating scales. It is divided into three sections: Present, Future, and Past, the items in each section being scored (a scoring manual is available for this) and summed separately. The three Section Scores are then summed for a Total Time Questionnaire Score. The Time Questionnaire's were scored by research assistants who were unaware of the patient's status in either experimental or control group; they are experienced in scoring this instrument which is given routinely to all patients in the Suicide-Depression Research Unit at I.S.P.I. Benzies (1971) has established reliability coefficients for each of the three questionnaire sections, the total TQ scores, and also the number of years projected into the future. With the exception of the section on the past ($r = .48$), the coefficients range between .79 and .84. Also, inter-rater reliability coefficients were computed on the 14 non-objective items. All the reliability coefficients were above .80, the lowest being .83. This, states Benzies, indicated that the TQ can be reliably scored by a non-professional with only instruction in the use of the scoring manual.

Time Reference Inventory: This is a 30-item questionnaire that is also divided into three sections:

Past, Present, and Future. Its items also measure a positive, neutral, and negative affect dimension. Foulks and Webb (1970) showed that the coefficients of test-retest reliability were high and significant in his study of time perspective in patients of different diagnostic categories (See above "Review of the Literature").

Brief Psychiatric Rating Scale (Overall and Gorham, 1962). This is a scale comprised of 16 relatively independent symptom areas rated on seven-point ordered categories. It was developed from the Lorr Multidimensional Scale for Rating Psychiatric Patients and the Lorr Inpatient Multidimensional Scale for Rating Psychiatric Patients and the Lorr Inpatient Multidimensional Psychiatric Scale. The scale was intended to provide a rapid assessment technique particularly suited to the evaluation of patient change. Validity and reliability studies are offered in the above-cited research. Estimates of reliability by two independent raters of 112 newly admitted patients for a drug study of 14 scales similar to the first 14 of the present version, resulted in correlation between .67 and .90. Following this study, the Brief Psychiatric Rating Scale present version was produced by minor revisions of the 14 scales and the addition of scales 15 and 16. "Paired independent ratings on 83 newly admitted patients from a drug screening

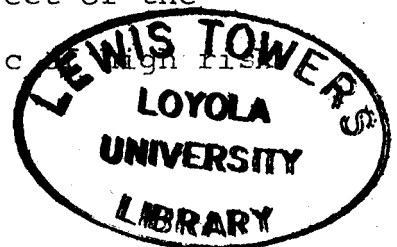
project yielded correlations from .56 (for Tension) to .87. The validity studies involved the validity of the short rating scale as a substitute for the longer Multi-dimensional Scale for Rating Psychiatric Patients in evaluating drug effects: the validity was indicated by a correlation of .93 between change scores with the longer one in a six-month study in which 120 schizophrenic patients were given Thorazine and Serpasil.

Suicidal Ideation Scale. This scale (see appendix) is derived from the still experimental work of Aaron Beck on suicidal ideation. There is no acceptable objective measure of "passage of suicidal crisis." Thus, one has to rely upon the therapist's judgment about an individual patient. The suicidal ideation scale used is a rating scale derived from Beck's work. The psychologists on the suicide and depression research unit at I.S.P.I. agree that if a patient scores zero on all items on this scale, he is no longer a high-risk suicidal patient. Thus, by having the patient's therapist rate his patient on this scale, one specifies somewhat the "therapist's clinical judgment of the passage of the suicidal crisis." At least by specifying the criteria of the therapists' judgment, it enables other researchers to replicate the findings of this project.

RESULTS

Figures 1 through 5 show the relationship of test to retest means for the experimental and control groups on present, future, past and total Time Questionnaire scores and number of years projected. The means and standard deviations for each group at test and retest are presented in Tables 2 through 6 for all five variables.

A two-way analysis of variance for two-factor experiments with repeated measures on one factor (Weiner, 1962, pp. 302-310) was performed for each of the five variables. Summaries of the results appear in Tables 7 through 11. For the present, future, past, and total scores the F Ratios for the effect of the group factor, treatment factor, and their interaction were all significant at the .001 level. For the variable of years projected only the group by treatment interaction effect was significant ($p < .05$). For the question under study the interaction effect is of greatest importance. It follows from the hypothesis - that the effect of the constricted time perspective characteristic of high risk



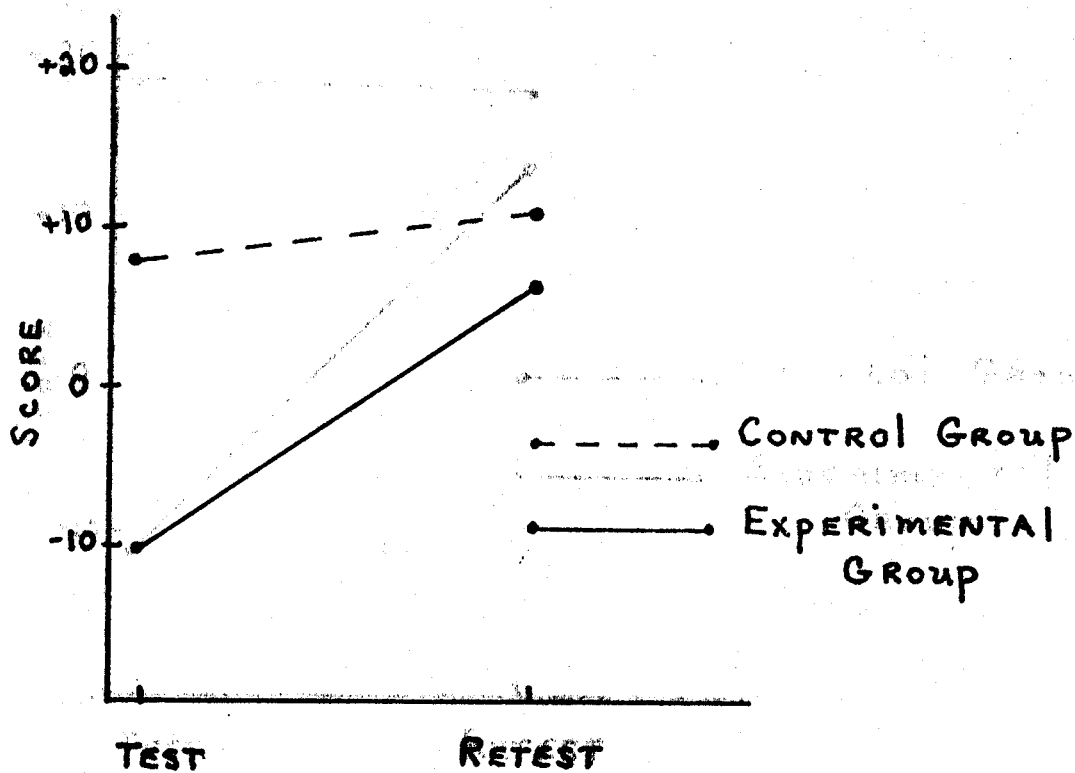


Figure 1. Mean Present Scores at test and retest for experimental and control groups.

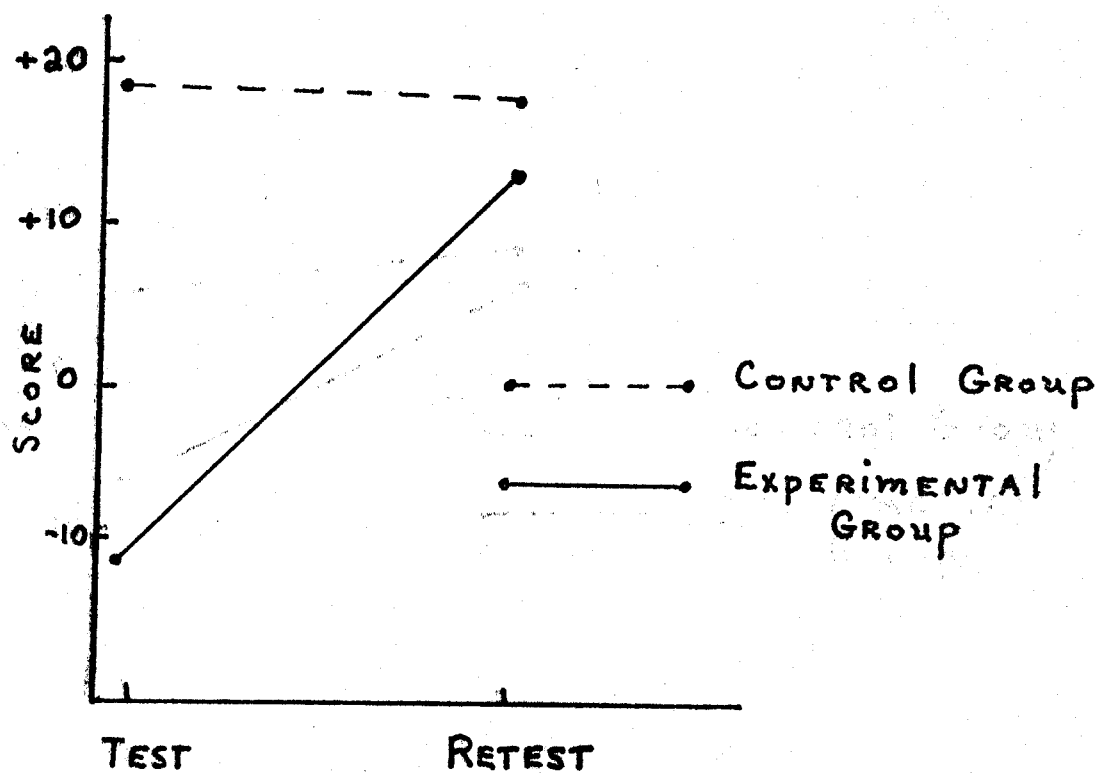


Figure 2. Mean Future Scores at test and retest for experimental and control groups.

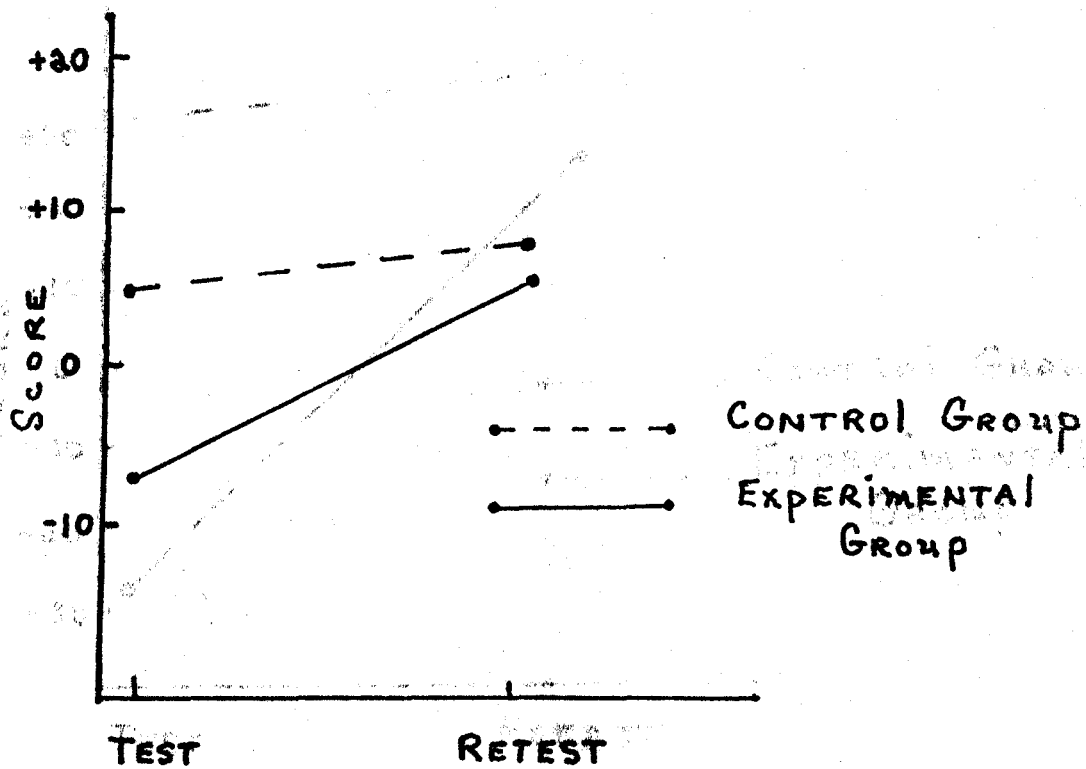


Figure 3. Mean Past Scores at test and retest for experimental and control groups.

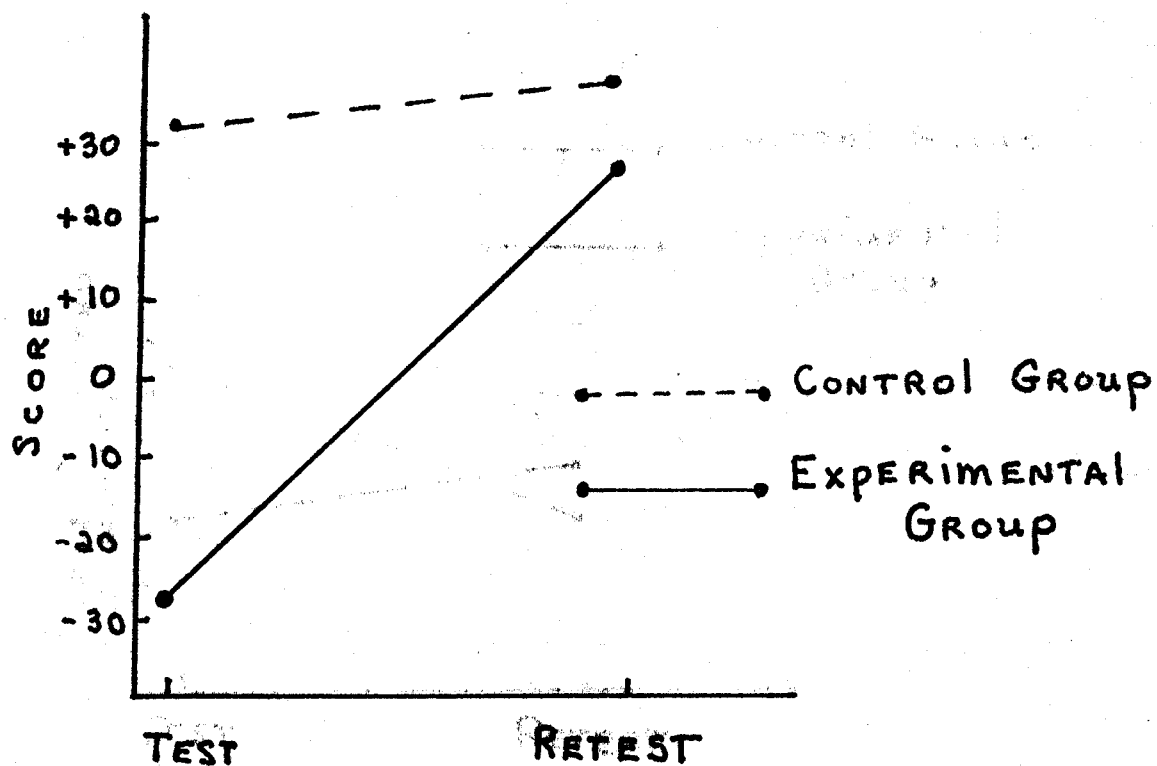


Figure 4. Mean Total Scores at test and retest for experimental and control groups.

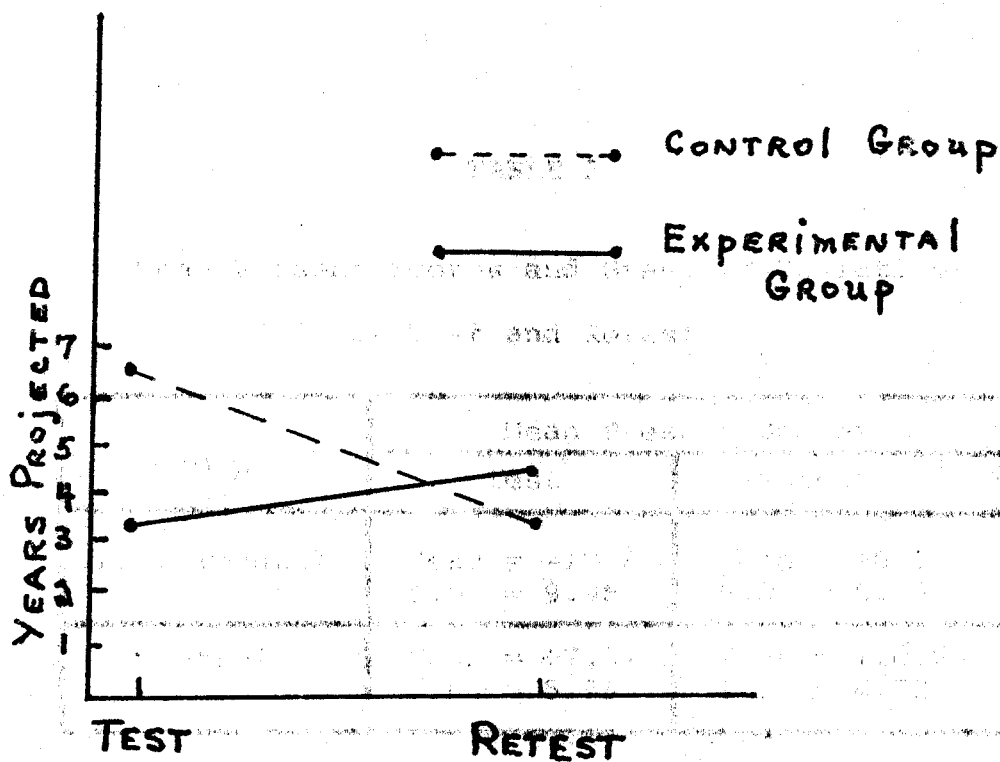


Figure 5. Mean Years Projected at test and retest for experimental and control groups.

TABLE 2

Mean Present Scores and Standard Deviations
at Test and Retest

Groups	Mean Present Scores	
	Test	Retest
Experimental	Mean = -10.8 S.D. = 9.08	Mean = +6.6 S.D. = 8.15
Control	Mean = +7.57 S.D. = 5.35	Mean = +10.83 S.D. = 4.52

TABLE 3

Mean Future Scores and Standard Deviations
at Test and Retest

Groups	Mean Future Scores	
	Test	Retest
Experimental	Mean = -11.1 S.D. = 22.17	Mean = +13.8 S.D. = 15.12
Control	Mean = +18.83 S.D. = 7.21	Mean = +18.47 S.D. = 7.06

TABLE 4

Mean Past Scores and Standard Deviations
at Test and Retest

Groups	Mean Past Scores	
	Test	Retest
Experimental	Mean = -6.9 S.D. = 8.26	Mean = +5.6 S.D. = 6.72
Control	Mean = +5.53 S.D. = 7.55	Mean = +8.37 S.D. = 4.29

TABLE 5

Mean Total Scores and Standard Deviations
at Test and Retest

Groups	Mean Total Scores	
	Test	Retest
Experimental	Mean = -28.8 S.D. = 27.35	Mean = +26.0 S.D. = 26.08
Control	Mean = +31.93 S.D. = 10.66	Mean = +37.8 S.D. = 10.58

TABLE 6

Mean Years Projected and Standard Deviations
at Test and Retest

Groups	Mean Years Projected	
	Test	Retest
Experimental	Mean = 3.3 S.D. = 1.27	Mean = 4.5 S.D. = 1.08
Control	Mean = 6.47 S.D. = 9.74	Mean = 3.4 S.D. = 5.21

TABLE 7

Analysis of Variance of Present Scores

Source of Variation	SS	df	MS	F
Between <u>Ss</u>		59		
Groups (A)	3869.01	1	3869.01	58.87*
<u>Ss</u> within groups	3812.0	58	65.72	
Within <u>Ss</u>		60		
Treatments (B)	3233.31	1	3233.31	88.22*
A x B	1514.39	1	1514.39	41.32*
B x <u>Ss</u> within groups	2125.53	58	36.65	

*p < .001

TABLE 8

Analysis of Variance of Future Scores

Source of Variation	SS	df	MS	F
Between <u>Ss</u>		59		
Groups (A)	9068.49	1	9068.49	27.44*
<u>Ss</u> within groups	19169.30	58	330.51	
Within <u>Ss</u>		60		
Treatments (B)	4561.97	1	4561.97	48.30*
A x B	4833.15	1	4833.15	51.17*
B x <u>Ss</u> within groups	5477.83	58	94.45	

*p < .001

TABLE 9

Analysis of Variance of Past Scores

Source of Variation	SS	df	MS	F
Between <u>Ss</u>		59		
Groups (A)	1750.13	1	1750.13	26.13*
<u>Ss</u> within groups	3884.50	58	66.97	
Within <u>Ss</u>		60		
Treatments (B)	1782.55	1	1782.55	58.03*
A x B	706.90	1	706.92	23.01*
B x <u>Ss</u> within groups	1781.83	58	30.72	

*p < .001

TABLE 10

Analysis of Variance of Total Scores

Source of Variation	SS	df	MS	F
Between <u>Ss</u>		59		
Groups (A)	39849.05	1	39849.05	58.01*
<u>Ss</u> within groups	39842.33	58	686.49	
Within <u>Ss</u>		60		
Treatments (B)	27882.36	1	27882.36	165.37*
A x B	18135.46	1	18135.46	107.56*
B x <u>Ss</u> within groups	9779.14	58	168.61	

* $p < .001$

TABLE 11

Analysis of Variance of Years Projected

Source of Variation	SS	df	MS	F
Between <u>Ss</u>		59		
Groups (A)	33.63	1	33.63	0.45**
<u>Ss</u> within groups	4356.42	58	75.11	
Within <u>Ss</u>		60		
Treatments (B)	27.57	1	27.57	0.86**
AxB	135.74	1	135.74	4.25*
B x <u>Ss</u> within groups	1852.01	58	31.93	

* $p < .05$

** not significant

suicidals is transient - that the passage of time of high risk status would differentially affect the suicidal (experimental) and non-suicidal (control) groups, i.e., a significant interaction would result. Not only is the interaction effect significant for each of the variables but it can be seen in Figures 1 through 5 that the change occurred in the hypothesized direction, i.e., the experimental group's scores increased. To afford substantial support to the hypothesis it is necessary, however, to further statistically evaluate the significance of the changes within each group and the differences between groups at the time of testing and retesting. To do so, tests on all simple main effects for each of the five variables were performed (Weiner, 1962, pp. 310-312). Table 12 presents the resulting F ratios and their probability levels.

(For purposes of clarity, discussion of the single-item variable, years projected, will be postponed till after the present, future, past, and total scores are considered.)

There are four major and vital observations to be made from Table 12. First, it is an essential condition to testing the hypothesis - that the effect of suicidal crisis on time perspective is transient - that suicidal crisis have a demonstrable effect on time perspective. Column 1 indicates that suicidal crisis had a highly

TABLE 12

F Ratios and Probability Levels of Tests for Simple Main Effects
for the Five Variables

	Groups at Test	Groups at Retest	Experimental Group Test to Retest	Control Group Test to Retest
Total	F = 129.34 p < .001	F = 4.88 p < .05	F = 267.16 p < .001	F = 3.06 n.s.
Present	F = 98.55 p < .001	F = 5.25 p < .05	F = 123.91 p < .001	F = 4.37 p < .05
Future	F = 63.25 p < .001	F = 1.54 n.s.	F = 98.47 p < .001	F = 0.02 n.s.
Past	F = 47.47 p < .001	F = 2.35 n.s.	F = 76.29 p < .001	F = 3.93 n.s.
Years Projected	F = 2.81 n.s.	F = 0.32 n.s.	F = 0.64 n.s.	F = 4.42 p < .05

significant effect on time perspective as measured by the total and the three subscores (present, future, past); the differences are all significant at the .001 level. Second, in order to support the hypothesis of a transient effect, it is essential to demonstrate a substantial change in time perspective for the experimental (suicidal) group with the passage of the crisis (test to retest). Column 3 indicates that the experimental group showed a highly significant ($p < .001$) change from test to retest on the total and all three subscores of time perspective. Third, it is essential to the support of the hypothesis to demonstrate that the change was specific to the experimental group and therefore attributable of the passage of the suicidal crisis and not simply to the lapse of time or amelioration of pathology. Column 4 indicates that the change in the control group was not significant for the total score and not significant for two of the subscores, past and future. For the third sub-score, present, the change was significant at the .05 level, with an F of 4.37 ($df = 1, 58$). If we compare the F ratios for the experimental and the control group on change in present scores (F ratios have the same denominator and degrees of freedom) we find that not only is the change in the experimental group more significant ($p < .001$ as compared to $p < .05$), but that

the F ratio for the experimental group is more than 28 times as large as that for the control group. Thus, the specificity of the change is quite clearly supported. Fourth, while not essential to the general hypothesis under test, it is interesting to note that at the point where suicidal crisis has passed (Column 2), the experimental and control groups are not significantly different on past and future scores and only minimally different on present and total scores ($p < .05$), whereas they were highly significantly different ($p < .001$) on all scores at times of admission (test).

The variable of years projected manifests quite different results from those for the other four variables. The analysis of variance results show only a minimally significant interaction ($F = 4.25$; $df = 1, 58$; $p < .05$) and no significant main effects. The F ratios for the simple main effects (Table 12) tell us that the control group change was minimally significant ($F = 4.42$; $df = 1, 58$; $p < .05$), and that the experimental group did not change significantly. This is difficult to interpret, however, since the groups were not significantly different from each other at the time of test or at retest. On the basis of these results the variable of years projected as a measure of time perspective does not support the hypothesis. Because of the skewed nature of the data it was decided that a non-parametric test could, however,

provide more information regarding the behavior of the variable. Thus the experimental and control groups were divided into those whose scores increased from test to retest, and those whose scores remained the same or decreased. The result indicates that the trend to increase one's projection was indeed stronger (more frequent) in the experimental group ($\chi^2 = 3.675$, $p < .10$) than in the control group. More will be said about the number of years projected in the Discussion section.

While the subjects were closely matched (see Table 1) and identically treated with regard to the measures of this study, alternate hypotheses need to be considered. To rule out amelioration in level of pathology as an explanation for change in time perspective, a Pearson product-moment correlation was computed between total Time Questionnaire change scores and Brief Psychiatric Rating Scale change scores for the experimental group. The result ($r = -0.388$, $df = 28$) indicates that amelioration of pathology would account for only 15% of the variance of the change in time perspective. Also to be ruled out is the possibility that variation in test-retest time interval (mean = 33 days for both groups) was linearly related to total Time Questionnaire change scores for the experimental group; this would support a simple passage of time hypothesis rather than the passage of the suicidal crisis per se. Therefore, the total Time

Questionnaire change scores were correlated with test-to-retest time intervals for the experimental group, resulting in a $r = -0.166$ ($df = 28$). This indicates that the passage of time is not related to change in time perspective.

In summary, the results indicate the following about the hypotheses:

- I. The experimental (suicidal) group will demonstrate a change of time perspective between time of admission (test) and time of retest (when patient is judged no longer a high risk suicidal). This change will be in the direction of the non-suicidal and will be operationally defined as a statistically significant higher score on the measure of time perspective at the time of retest.

This hypothesis was borne out if one uses the total score in defining "higher score on the measure of time perspective." It is also borne out for the present, future, and past scores, all at the .001 level. The direction of the change is apparent in Figure 1 through 4, and in the comparisons between experimental and control change scores in Table 13. The hypothesis is not borne out for the variable, years projected. Though the change observed in the mean scores of the experimental group from test to retest, they were not significant. Also, significantly more (χ^2) members of the experimental group increased the number of years projected from test to retest than did members of the control group.

- II. The control group will not exhibit as much change as the experimental group on the retest.

TABLE 13

Time Questionnaire Mean Scores for the Two Groups
at Test and Retest and the Difference between Means
for the Five Variables

Score	Groups	Test	Retest	Difference
Present	Suicidal	-10.80	+6.60	+17.40
	Control	+7.57	+10.83	+3.26
Future	Suicidal	-11.10	+13.80	+24.90
	Control	+18.83	+18.47	-0.36
Past	Suicidal	-6.90	+5.60	+12.10
	Control	+5.53	+8.37	+2.84
Total	Suicidal	-28.80	+26.00	+54.80
	Control	+31.93	+37.80	+5.87
Years Projected	Suicidal	3.30	4.50	+1.20
	Control	6.47	3.40	-3.07

This hypothesis received confirmation also for the total, present, future, and past scores. Column 4 of Table 12 indicates that three of the scores for the control group were not significantly different from test to retest and the the present was only minimally significant ($F = 4.37$, $df = 1.58$, $p < .05$.) This is a marked contrast to Column 3, where the F 's of the experimental group are all significant at the .001 level.

III. Of the scores comprising the total scores (present, future, and past), the greatest contrast between the experimental and control groups will be found in the future scores - that aspect of time perspective most closely related theoretically to suicide (as loss of hope).

Table 13 indicates that the mean difference score for the experimental group on the future score is the highest of all difference scores, and that the difference score for the control group (-0.36) is the lowest for all groups for all subscores. Also, if one compares the F ratios of the experimental group (Column 3 of Table 12) to those of the control group (Column 4 of Table 12), one sees that the F for the experimental group is larger than that of the control group by a factor of about 5000, as compared to a factor of about 30 for the present scores and a factor of about 20 for the past scores.

IV. The control group will project further into the future (years projected) than will the experimental group at the time of admission (test).

Although the mean score of the control group was larger

than that of the experimental group (6.47 vs. 3.30), this difference was not significant and this hypothesis was not confirmed.

V. The experimental group will project further into the future at time of retest than at time of test (admission).

Again, although the mean score of the experimental group at retest (4.50) was greater than that at test (3.30), this difference was not significant and this hypothesis was not confirmed.

CHAPTER VI

DISCUSSION

The overall hypothesis that the time perspective characteristic of high risk suicidal people is a transient state and passes with the suicidal crisis found support in the present research. The total Time Questionnaire scores of the experimental (suicidal) group were significantly different at the .001 level from test to retest. The analysis of variance on the total scores indicated a significant difference between the experimental and control groups. The test of simple main effects indicated that while the change occurring in the experimental group, between test and retest, was significant, that in the control group was not. By comparing the F ratios of the experimental and control groups from test to retest conditions, one sees that the change in the experimental group accounts for most of the total variance. Since the two groups were equated as to age, sex, ethnic identification, socioeconomic

status, level of pathology, and time interval between test and retest, one may conclude that the change occurred as a result of the passage of the suicidal crisis. To corroborate this conclusion, a Pearson correlation was computed between total Time Questionnaire change scores and level of pathology (Brief Psychiatric Rating Scale) change scores, which yielded an r of -0.388 . Thus amelioration of pathology accounted for only 15% of the variance. To ascertain the importance of mere passage of time to change scores, the total Time Questionnaire change scores were correlated with the time intervals between test and retest, resulting in an r of -0.166 . This indicated that passage of time was not significantly correlated with change in time perspective. Thus, one feels more certain that the change observed in the experimental group was indeed due to the passage of the suicidal crisis per se.

The earlier finding of Yufit (1970, in press) that suicidal patients have a different time perspective (operationally defined as lower scores on his Time Questionnaire) from non-psychiatric and from other patient groups was corroborated by this research not only for the total score, but for each of the subscores that comprise it (present, future, and past). His finding that number of years projected was significantly different for suicidal and non-suicidal groups was not corroborated. It is

interesting to note that while the two groups were significantly different at the .001 level at time of admission, they were not significantly different at time of retest on future and past scores and different at the .05 level on total and present scores. Thus, time perspective is seen as an effective discriminant between acutely suicidal and non-suicidal people, even where their overall level of symptomatology is the same. Also, the suicidal and non-suicidal groups are not significantly different after the crisis.

Because of the close theoretical link of future time perspective to the concept of hope, it is interesting to note that the greatest change for the experimental group occurred on the future scores (+24.90) and the least change for the control group was on the future scores, too (-0.36). These findings are in harmony with much of the theoretical work on suicide at present. Farber's (1968) conception of suicide as a "disease of hopelessness" has been mentioned above. Kobler and Stotland (1964) and Beck (1963), on the basis of clinical observation of suicidal patients, have also seen hopelessness as a stronger indicator of suicidal intent than depression itself.

Several empirical studies also support a statistical relationship between hopelessness and suicide. In a

systematic investigation of suicide notes, Bjerg (1967) reported that in 81% of the notes the writer regarded himself "as having a desire ... which could not, cannot, or will not be fulfilled (p. 480)." Farnham-Diggory (1964) reported that suicidal patients showed a significantly constricted subjective view of the future, compared with the non-suicidal patients. Ganzler (1967) compared six groups (ten men and ten women in each group) on various social and interpersonal perceptions: one group of non-crisis, non-suicidal psychiatric outpatients; one group in life crisis who were suicidal; and three groups of normal subjects. He found that, although all three psychiatric groups described their current life situations in negative terms, only the suicidal group rated the future negatively, in particular by anticipation and fear of social isolation in the future.

In a factor analysis of the Beck Depression Inventory (1961), Pichot and Lemperiere (1964) isolated a factor with high loadings for only two items: hopelessness and suicide. Cropley and Weckowicz (1966) reported an identical factor with even higher loading on hopelessness and suicidal wishes. Beck's analysis of the inter-correlations of individual items on his Depression Inventory showed that suicidal wishes correlated more highly with hopelessness than with any other item.

Most recently, Minkoff, Bergman, Beck, and Beck (1973) found validation of the hypothesis that "seriousness of intent of suicidal attempt is more closely related to hopelessness than to the syndrome of depression in general (p. 458)." They indicated that, no matter what the level of depression, those who were more hopeless had made more serious attempts on their life. Their measure of hopelessness (Generalized Expectancies Scale) is similar in nature to the future section of Yufit's Time Questionnaire; it attempts to assess "the cognitive element of negative expectations." Yufit also found in his studies that depression accounted for only 25% of the variance in Time Questionnaire Scores between suicidal and non-suicidal patients.

These data suggest an explanation of the relationship between depression and suicide. Earlier, much of the research has explored the connection between depression and depressive illness to attempted and completed suicide has been fairly well established (Stengel & Cook, 1958; Schmidt & O'Neill, 1959; Beck, 1967; Barraclough, Nelson, & Bunch, 1970; McHugh & Goodell, 1971; Silver, Bohnert, & Beck, 1971), there are few data to suggest the nature of this relationship. Three possibilities can be considered. One possibility is that suicidal behaviors are highly positively correlated to depression, just as fever is

to pneumonia (although it is not always present). Another possibility is that the statistical association between depression and suicide is merely an artifact resulting from a joint attachment to a third variable, such as age, to which each is directly statistically related. Finally, there is the possibility that depression and suicide are related because each has an underlying causal factor in common.

Menninger (1938), one of the major exponents of the third hypothesis, utilized Freud's classical theory of depression to argue that both depression and suicide were expressions of introverted unconscious hostility. This thesis has not been supported by experimental work (Beck, 1967). Newer theoretical constructs of depression by Beck (1967, 1970, 1972), Bibring (1953), Gaylin (1968), and others have demphasized the role of retroflected rage and have focused on what Beck (1967) has called the Cognitive Triad of Depression, i.e., negative attitudes of the depressed individual toward himself, the outside world, and his future.

From Beck's, Minkoff's, & Yufit's, work, it can be seen that one factor of the syndrome of depression - a negative attitude toward one's future - has been identified as being more closely related to serious suicidal behavior than is depression itself. The present research has not only corroborated these

findings, but has also shown that this phenomenon - called hopelessness or negative feelings toward the future - changes with the passage of the suicidal crisis, i.e., it is transient.

It is important also to state that, although an important relationship between hopelessness and suicide has been demonstrated, this does not state that hopelessness causes suicidal behavior. Thus, although one can argue well to support the theoretical and clinical hypothesis that hopelessness is the common causal factor linking depression and suicide, further work is necessary to show how hopelessness leads to suicidal behavior.

Nonetheless, what this study has demonstrated is also important. Studies have already identified depression as a danger sign of possible suicide and have indicated that the danger increases as the degree of depression increases. The present and other studies suggest that hopelessness is another danger sign, perhaps more sensitive than depression, of the seriousness of suicidal possibility. The Time Questionnaire has now not only demonstrated its ability to discriminate suicidal from non-suicidal populations, but now also has shown its possibility as an aid in assessing when the serious risk suicidal status has passed. Yufit has established critical scores, which can be found in his manual.

Besides the diagnostic usefulness of the concept of hopelessness as related to constricted future time

perspective , it may well be that there are therapeutic implications for the relationship between hopelessness and danger of suicide. What is suggested is that if the therapist focuses on reducing a person's hopelessness, (s)he may be able to alleviate suicidal crises more effectively than in the past. This might, for example, be accomplished by a psychotherapeutic approach in which negatively distorted expectations for the future are explored and corrected. On the other hand, if the patient's hopelessness is based on objective factors, appropriate social intervention may provide the necessary environmental changes to alleviate the reality situation (Minkoff et al., p. 459).

In all that has been said about the theoretical and empirical importance of time perspective, particularly future time perspective, to suicide, one may well wonder why then this study failed to show that the number of years projected by a person was not statistically different for the suicidal and non-suicidal group at time of admission, and not statistically different for the suicidal group between time of test and retest. A number of considerations are suggested. First of all, theoretically, future time perspective may be seen as containing four parameters: 1. the extent of future time projection, 2. the degree of elaboration of and involvement in specific future hopes and aspirations, 3. the consistency or stability of the projection, and 4. the

amount of realistic change projected in the future, as compared to one's present status. Thus, one sees that the score of years projected represents only one parameter of the four. The response to that one item in the future section is thus corrected and amended by the other items in the future section, so that the other three parameters can correct for "ambitious" projection into the future. It was noted that a number of patients first answered that item with a larger number, but then as the person tried to fill out the other items in terms of that year, they asked if they could change it. It cannot be stated how many others never bothered to change their first reply, but obviously the other items corrected for this "impulsive" answer to number of years projected.

Another consideration is a statistical one, namely that this score is gotten from only one item. It may be noted that Benzies' (1971) study did not find the suicidal and non-suicidal groups statistically different on this variable either, though she, like this author, did note a non-statistically-significant difference in the hypothesized direction. In the present study, the mean years projected for the experimental group at test was 3.3 years; however, the median score was 2 years. Since the range of scores at test was 0 to 44 years and at retest was from 0 to 28 years, one may well conclude that

the mean is not a meaningful statistic for this particular variable. If one divides the experimental and control groups into two classes: those who increase their years projected from test to retest, and those who do not change or actually decrease their years projected, then one sees that 14 members of the experimental group increase their scores as opposed to only 6 members of the control group. Although twice as many members of the experimental group increased their years projected as did in the control group, the fact remains that less than half of the members of the experimental group either decreased their projection or kept it the same. This would indicate that the number of years projected must be understood and interpreted insofar as it is modified by the whole future section score.

It was mentioned that originally this research was going to use two time measures: the Time Questionnaire and the Time Reference Inventory. The Time Reference Inventory had to be dropped because it did not yield statistically analyzable data. In this particular measure, the person is asked to place events in the present, future, or past and to list an age for each item. The members of the experimental group complained that it was too difficult to put in ages for each item and hence did no ages, or else they omitted some items, or else they listed a range of years (e.g., 12 - 18). The net result was that

the measures were unscorable. One may have a number of hypotheses for the reason for this behavior. It may be that the patient's concentration is impaired severely at this time or that the patient is just not involved in anything in the outside world at a time like this. At any rate, this phenomenon of omissions led the researcher to look at a score on the Time Questionnaire that has not been analyzed statistically to this point, the omissions score. In the experimental group, only 10 members of the suicidal group had no omissions at test; whereas at retest only one of the experimental group had an omission score and that score was 1. Since the Time Questionnaire scores for omissions, it was appropriate for the suicidal group; whereas the Time Reference Inventory was not. This rationale for the salience of omission scores was stated thus:

A high omission score, in addition to indicating a lack of involvement, is usually considered a sign of high suicide risk when coupled with other negative scoring. Whether the underlying motivation is apathy, evasiveness or uncooperativeness is not judged as important as the overall aspect of withdrawal, which omissions usually indicate, and the seeking of isolation, which is one consequence. When cooperation and involvement is requested, and withdrawal is the response, the dynamics become a concern. (Yufit, 1973)

In the light of the finding of this research that there was a marked change in the number of omissions from test to retest, this may well provide an area for future research, in terms of such dimensions as isolation, withdrawal, or uninvolved.

CHAPTER VII

SUMMARY

Prior research has indicated that the time perspective of high risk suicidal patients is different from that of normals and other non-suicidal patient populations; it is very constricted and hopeless about the future. This research tested the hypothesis that this characteristic of suicidal patients is temporary, transient one and would pass with the passage of the suicidal crisis. To test this hypothesis, an experimental (suicidal) and control (non-suicidal) group were tested at admission to the hospital and then retested after the passage of the suicidal crisis on Yufit's Time Questionnaire. The groups were equated for age, sex, ethnic identification, socioeconomic status, level of pathology, and time interval between test and retest. The hypothesis that the suicidal group would change significantly in their time perspective (operationally defined as a score on the Time Questionnaire) after they were no longer considered suicidal was validated. Analyses of variance

(two groups, repeated measures) indicated that the two groups responded differentially to treatment in the total scores and also in the subscores that made up the total score (present, future, and past). Tests of simple main effects on the same scores indicated that the groups were different in time perspective at admission (corroborating Yufit's findings) and that the greatest amount of the total variance was explained by that which occurred in the experimental group from test to retest, again for all four variables (scores). The variable of years projected into the future was not seen to significantly differentiate the two groups at admission, and the suicidal group did not change significantly on this variable from test to retest. Of the three subscores, the greatest contrast between the groups' change was observed in the future section, that aspect of time perspective most closely related to suicide.

The findings were discussed in their relationship to the theoretical notion that future time perspective is a part of the general syndrome of depression (Beck, 1967). The implications of these findings for the diagnosis and treatment of high risk suicidal patients were also suggested. The Time Questionnaire was proposed as a useful tool for assessing the presence of high risk suicidal status and for the passage of high risk status.

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APPENDIX A

RISK - RESCUE RATING

Risk Score _____

Rescue Score _____

Risk-Rescue Rating _____

Patient _____ Age _____ Sex _____ Previous Attempts _____

Circumstances _____

RISK FACTORS

1. Agent Used:

- ☐ 1 Ingestion, cutting, stabbing
☐ 2 Drowning, asphyxiation, strangulation
☐ 3 Jumping, shooting

2. Impaired Consciousness:

- ☐ 1 None in evidence
☐ 2 Confusion, semicoma
☐ 3 Coma, deep coma

3. Lesions / Toxicity:

- ☐ 1 Mild
☐ 2 Moderate
☐ 3 Severe

4. Reversibility:

- ☐ 1 Good, complete recovery expected
☐ 2 Fair, recovery expected with time
☐ 3 Poor, residuals expected, if recovery

5. Treatment Required:

- ☐ 1 First aid, E.W. care
☐ 2 House admission, routine treatment
☐ 3 Intensive care, special treatment

Total Risk Points _____

RISK SCORE:

5. High risk (13 - 15 pts.)
 4. High moderate (11 - 12 pts.)
 3. Moderate (9 - 10 pts.)
 2. Low moderate (7 - 8 pts.)
 1. Low risk (5 - 6 pts.)

RESCUE FACTORS

1. Location:

- ☐ 3 Familiar
☐ 2 Non-familiar, non-remote
☐ 1 Remote

2. Person Initiating Rescue:

- ☐ 3 Key person
☐ 2 Professional
☐ 1 Passerby

3. Probability of Discovery:

- ☐ 3 High, almost certain
☐ 2 Uncertain discovery
☐ 1 Accidental discovery

4. Accessibility to rescue:

- ☐ 3 Asks for help
☐ 2 Drops clues
☐ 1 Does not ask for help

5. Delay until Discovery:

- ☐ 3 Immediate, 1 hour
☐ 2 Less than 4 hours
☐ 1 Greater than 4 hours

Total Rescue Points _____

RESCUE SCORE:

1. Least rescuable (5 - 7 pts.)
 2. Low moderate (8 - 9 pts.)
 3. Moderate (10 - 11 pts.)
 4. High moderate (12 - 13 pts.)
 5. Most rescuable (14 - 15 pts.)

Self-rescue automatically yields a Rescue Score of 5.

If there is undue delay in obtaining treatment after discovery, reduce the Rescue Score by one pt.

Table 1. Computation of Risk-Rescue Scores

Risk Score	Rescue Score	Risk-Rescue Score
1	5	17
1	4	20
1	3	25
1	2	33
1	1	50
2	5	29
2	4	33
2	3	40
2	2	50
2	1	66
3	5	38
3	4	43
3	3	50
3	2	60
3	1	75
4	5	44
4	4	50
4	3	57
4	2	66
4	1	80
5	5	50
5	4	56
5	3	63
5	2	71
5	1	83

Out of a number of possibilities we selected five variables to go into an assessment of risk and five variables to assess rescue. These variables and their definitions are listed below.

Risk Factors-Agent-The agent answers the question, "What did the person do?" We grade inherent drug ingestion, cutting, or stabbing, on the whole, is less likely to cause irreversible damage than are gunshot wounds and jumping from high places. Cases of drowning, asphyxiation, and strangulation are apt to cause intermediate degrees of damage. Combinations of agents, such as ingesting drugs, and leaping from a bridge, are graded according to the most lethal agent.

Impaired Consciousness-Impaired consciousness is graded according to the impairment at or during the time of rescue. Three levels of impaired consciousness are scored: (1) None in evidence; (2) confusion and semicomatose; and (3) coma, deeply comatose. The first level means that the subject is alert and oriented. At the second level, the subject is somewhat disturbed, not wholly in contact, and his verbal responses are apt to be reduced or inappropriate. Coma, deeply comatose, occurs when the subject does not respond to his surroundings, cannot speak, and may barely react to painful stimuli.

Lesions and Toxicity-Although lesions and toxicity can be separately rated, because we are estimating only the actual damage inflicted, we grade them together. Physical lesions are scored as mild, moderate, or severe. Mild means superficial, transient, and self-limited damage, ie, wrist scratching without significant blood loss or abrasions needing minimal care. Moderate lesions require treatment by a physician, but are not life-threatening in themselves. Examples are damage to smaller arteries, lacerations that need sutures, and fractures of smaller bones. Severe lesions refer to extensive damage to larger blood vessels, penetrating or necrotizing lesions of vital organs, fractures of large bones, the skull, or vertebral column, with neurological changes.

We score ingestions, which are the chief agents producing toxicity, according to a toxicity chart, devised by Robert Sterling-Smith, for 30 drugs used most frequently in suicide attempts treated at the Massachusetts General Hospital. This chart takes into consideration what the patient ingested and clinically calculates the potential danger or toxicity as being mild, moderate, or severe.

Reversibility-This factor properly belongs to the set of intangibles called "clinical Judgment". It refers to the time of medical recovery that is anticipated when the person is first evaluated by a clinician. Good means that medical recovery is expected to be complete within 24 hours. Fair is a delayed recovery, but expected to be complete in less than one week (one to six days).

Poor means a questionable recovery because significant impairment or residual damage is likely. The six-day point was decided upon because patients who are still in the hospital after six days usually have damaged themselves severely enough to require extended hospitalization and treatment. Minor scars or fractures that will heal in time are not considered signs of poor or questionable reversibility.

Treatment Required-Although rescue ends when treatment begins, we consider an assessment of the treatment required as a further judgment about the extent of actual physical damage. Since this is a clue as to the degree of physical injury to which the patient has been exposed, it is included as an aspect of the risk assessment rather than the rescue. Requirements may range from first aid or other simple interventions, to hospital admission for observation and general care, to the therapy and management required by patients with the highest risk, namely, special skills and facilities, such as an intensive care unit provides.

Reversibility and treatment required apply only to physical damage or toxicity, not to the estimated reversibility of psychiatric disorders. Concomitant psychiatric disturbances are not included in the assessment of implementation. As a rule, psychiatric disorders, such as psychotic depression and schizophrenia, belong to assessment of the lethality of intentionality. Their responsiveness to treatment also influences judgment about the lethality of involvement.

Rescue Factors-Although resources for rescue obviously affect a patient's chances for survival, hospital records seldom document the circumstances of the rescue, such as whether clues were given, the location of the attempt, or the probability of any rescue. The following five factors were selected because they could be readily established, and require minimal interpretation and inference. Obviously, there are many other factors influencing rescue that are more subtle, but they do not lend themselves to scoring with any degree of operational clarity.

Location-Location answers the question, "where did the attempt occur?" We found that three types of location were likely to influence the Rescue: Familiar is a place that is part of the subject's routine. Examples are residence, office, shop, recreation site, anywhere that the subject would be recognized. Non-familiar, nonremote locations are places where the person would not be recognized, but still might be identified as someone in trouble. Examples are subways, office buildings, bridges, public facilities. Remote places are sites where discovery cannot be counted upon. Examples are alleys, rural roads, deserted beaches, and office buildings during the weekend.

Person Initiating Rescue-A "rescuer" is someone who initiates steps for rescue after discovering the attempt. People who merely transport the subject to a treatment facility are not considered rescuers. Other than a self-rescuing person, one who delivers himself to medical treatment, we have three types of rescuers. A Key Person is someone who knows and is known by the subject. The key person need not be a "significant other," i.e., someone with whom there has been a sustained and reciprocal relationship. The key person may be a professional, eg, a psychiatrist or clergyman, provided that the subject is well-known to that person. A Professional is a person whose job is such that he could be expected to initiate rescue operations. This includes, generally, a physician, policemen, bartenders, cab drivers, or telephone operators who might be contacted by the subject. The third type of rescuer is the passerby, someone with no regular obligation to render service, or to initiate rescue. Examples are chambermaids, parking lot or washroom attendants, and pedestrians.

Probability of Discovery by any Rescuer-This category refers to the potential availability of any rescuer at the time of the attempt. For example, a person who attempts suicide at home, but at a time when no one is expected to call, diminishes the probability of discovery, although the uses a familiar location. Probability of discovery might have been greater, had he used a non-familiar nonremote location. There are three grades of probability. High, almost certain means that rescuers are nearby, or are faced with the attempt immediately thereafter. An example is a person who cuts his wrists in the bathroom and then appears in the living room where the family is sitting. Uncertain discovery refers to moderate probability of being found. The attempter may not present himself to a potential discoverer, even though he may be nearby. The rescue is not certain; the discovery may not take place until it is too late. Low, accidental is when the rescue takes place only by chance, as if the subject took precautions to avoid discovery.

Accessibility to Rescue-Risk-rescue rating does not attempt to determine whether a person intended to die or expected to be rescued. Accessibility to rescue refers to what the person did, rather than what he intended to be done in response to his actions. We recognize three grades of accessibility which imply some openness to rescue. Asks for help is a clear-cut statement about despair and suicide ideation. By calling upon another in a direct way the subject vastly increases his chances for rescue. Leaves clues means that the subject has given a sign that he intended to attempt suicide. The signs may be direct or indirect through notes, empty bottles conspicuously placed, even tangential statements to alert rescuers. Indirect signs such as staggering or appearing groggy might be construed

as a clue. Letters mailed out but not deliverable before the attempt are not considered clues. Does not ask for help is what it suggests. Physical signs of an attempt, such as a trail of blood, the sound of an automobile running in a closed garage, or a pile of clothing near the railing of a bridge are not considered asking for help.

Delay Until Discovery-This category refers to the time lapse between the suicidal act and the start of rescue operations. It is an important rescue factor because treatment often depends upon how promptly the person can be discovered. However, delay until discovery does not include the interval from discovery until treatment, because this period is often determined by availability of transportation, adequate treatment resources, and so forth. We use the periods of one hour or less, and four hours, as critical intervals, because less than one hour usually indicates that available rescuers are nearby, while discovery delayed beyond four hours often means that the context of rescue is seriously compromised.

Scoring Risk-Rescue-The risk-rescue rating is assessed conveniently by using the form illustrated. The form also includes identifying data, such as age, sex, and prior suicidal history, and space for a brief description of the attempt itself.

Each of the five risk factors is rated on a scale of one to three points and the total risk points are then converted to an overall risk score ranging from one to five. The highest risk score is five; the lowest is one.

Similarly, each of the five rescue factors is rated on a one to three scale and the total rescue points are converted into a rescue score ranging from one to five.

APPENDIX B

BRIEF PSYCHIATRIC RATING SCALE

INSTRUCTIONS: In the rating scale below, check the appropriate column after each symptom which best describes the patient's present condition as compared to a normal person of the same age and sex: 1 = not present; 2 = very mild; 3 = mild; 4 = moderate; 5 = moderately severe; 6 = severe; 7 = extremely severe.

1. SOMATIC CONCERN (Degree of concern over present bodily health): Rate the degree to which physical health is perceived as a problem by the patient, whether complaints have a realistic basis or not.	7	6	5	4	3	2	1
2. ANXIETY (Worry, fear, or overconcern for present or future): Rate solely on the basis of patient's own subjective experiences. Do not infer anxiety from physical signs or from neurotic defense mechanisms.	7	6	5	4	3	2	1
3. EMOTIONAL WITHDRAWAL (Deficiency in relating to the interviewer and to the interview situation): Rate only the degree to which the patient gives the impression of failing to be in emotional contact with other people in the interview situation.	7	6	5	4	3	2	1
4. CONCEPTUAL DISORGANIZATION (Degree to which the thought processes are confused, disconnected or disorganized): Rate on the basis of integration of the verbal products of the patient; do not rate on the basis of patient's subjective impression of his own level of functioning.	7	6	5	4	3	2	1
5. GUILT FEELINGS (Over-concern or remorse for past behavior): Rate on the basis of the patient's subjective experiences of guilt as evidenced by verbal report with appropriate affect; do not infer guilt feelings from depression, anxiety, or neurotic defenses.	7	6	5	4	3	2	1
6. TENSION (Physical and motor manifestations of tension, "nervousness," and heightened activation level): Tension should be rated solely on the basis of physical signs and motor behavior and not on the basis of subjective experiences of tension reported by the patient.	7	6	5	4	3	2	1

(CONT.)

BRIEF PSYCHIATRIC RATING SCALE - 2

7. MANNERISMS AND POSTURING (Unusual and unnatural motor behavior which causes certain mental patients to stand out in a crowd of normal people): Rate only abnormality of movements; do not rate simple heightened motor activity here.	7	6	5	4	3	2	1
8. GRANDIOSITY (Exaggerated self-opinion, conviction of unusual ability or powers): Rate only on the basis of patient's statements about himself or self-in-relation-to-others, not on the basis of his demeanor in the interview.	7	6	5	4	3	2	1
9. DEPRESSIVE MOOD (Despondency in mood, sadness): Rate only degree of despondency; do not rate on the basis of inferences concerning depression based upon general retardation and somatic complaints.	7	6	5	4	3	2	1
10. HOSTILITY (Animosity, contempt, belligerence disdain for other people outside the interview situation): Rate solely on the basis of the verbal report of feelings and actions of the patient toward others; do not infer hostility from neurotic defenses, anxiety or somatic complaints. (Rate attitude toward interviewer under "uncooperativeness.")	7	6	5	4	3	2	1
11. SUSPICIOUSNESS (Belief, delusional or otherwise, that others have now, or have had in the past, malicious or discriminatory intent toward the patient): On the basis of verbal report, rate only those suspicions which are currently held whether they concern past or present circumstances.	7	6	5	4	3	2	1
12. HALLUCINATORY BEHAVIOR (Perceptions without normal external stimulus correspondence): Rate only those experiences which are reported to have occurred within the last week and which are described as distinctly different from the thought and imagery processes of normal people.	7	6	5	4	3	2	1
13. MOTOR RETARDATION (Reduction in energy level evidenced in slowed movements and speech, reduced body tone, decreased number of movements) Rate on the basis of observed behavior of the patient only; do not rate on basis of patient's subjective impression of own energy level.	7	6	5	4	3	2	1

(CONT.)

BRIEF PSYCHIATRIC RATING SCALE - 3

14. UNCOOPERATIVENESS (Evidence of resistance, unfriendliness, resentment, and lack of readiness to cooperate with the interviewer): Rate only on the basis of the patient's attitude and responses to the interviewer and the interview situation; do not rate on basis of reported resentment or uncooperativeness outside the interview situation.	7	6	5	4	3	2	1
15. UNUSUAL THOUGHT CONTENT (Unusual, odd, strange, or bizarre thought content): Rate here the degree of unusualness, not the degree of disorganization of thought process.	7	6	5	4	3	2	1
16. BLUNTED AFFECT (Reduced emotional tone, apparent lack of normal feeling or involvement)	7	6	5	4	3	2	1

17. Considering your total clinical experience, how mentally ill is the patient at this time?

Check

Normal, not ill at all		1
Borderline mentally ill		2
Mildly ill		3
Moderately ill		4
Markedly ill		5
Severely ill		6
Among the most extremely ill patients		7

SCORE = Sum of ratings 1 through 17 = _____

1. The first of these is the fact that the

2. The second is the fact that the

3. The third is the fact that the

4. The fourth is the fact that the

5. The fifth is the fact that the

6. The sixth is the fact that the

7. The seventh is the fact that the

8. The eighth is the fact that the

9. The ninth is the fact that the

10. The tenth is the fact that the

APPENDIX C

TIME REFERENCE INVENTORY
(Philip Roos, Ph. D.)

This is a brief inventory designed to estimate people's reactions in terms of past, present, and future. Please indicate for each statement below whether it most nearly refers to the past, present, or future, by placing an X in the appropriate column. Be sure to place only one X for each statement. In the "Age" column, indicate your best guess of your age at the time to which the statement refers. In cases where a statement applies to a time in the future less than a year from now, list under the "age" column your present age.

Two samples follow:

Sample 1: I am taking the Time Reference Inventory in the

Past	Present	Future	Age
	X		your current age.

Sample 2: My death is in the

Past	Present	Future	Age
		X	85

In Sample 1, since the subject is currently taking the Time Reference Inventory, he places the X under the "Present" column, and under the "Age" column he lists his current age.

In Sample 2, the subject expects to die in the future, and hence he places the X under the "Future" column. His guess is that he will die at the age of 85, and, therefore, he writes "85" under the "Age" column.

Please complete every statement below, even though you may have to make "wild guesses".

1. The most important time of my life is probably in the

Past	Present	Future	Age
------	---------	--------	-----

2. I believe the happiest time of my life is in the

Past	Present	Future	Age
------	---------	--------	-----

3. The most productive period of my life is in the

Past	Present	Future	Age
------	---------	--------	-----

4. The most peaceful time of my life is in the

Past	Present	Future	Age
------	---------	--------	-----

5. I usually prefer talking about the

Past	Present	Future	Age
------	---------	--------	-----

6. The most crucial period of my life is probably in the

Past	Present	Future	Age
------	---------	--------	-----

7. The most satisfying time of my life is probably in the

Past	Present	Future	Age
------	---------	--------	-----

8. My period of greatest accomplishment is probably in the

Past	Present	Future	Age
------	---------	--------	-----

9. The most untroubled period of my life is probably in the

Past	Present	Future	Age
------	---------	--------	-----

10. I get most enjoyment out of thinking about the

Past	Present	Future	Age
------	---------	--------	-----

11. The most unhappy time of my life seems to be the

Past	Present	Future	Age
------	---------	--------	-----

12. I believe the most difficult period of my life is in the

Past	Present	Future	Age
------	---------	--------	-----

13. The most frightening time in my life is in the

Past	Present	Future	Age
------	---------	--------	-----

14. My period of greatest worrying is probably in the

Past	Present	Future	Age
------	---------	--------	-----

15. The most discouraging time of my life seems to be the

Past	Present	Future	Age
------	---------	--------	-----

16. My period of greatest depression is probably in the

Past	Present	Future	Age
------	---------	--------	-----

17. I feel the most frustrating time of my life is in the

Past	Present	Future	Age
------	---------	--------	-----

18. The most anxious time of my life is probably in the

Past	Present	Future	Age
------	---------	--------	-----

19. The most troubled period of my life is probably in the

Past	Present	Future	Age
------	---------	--------	-----

20. My period of greatest discouragement is probably in the

Past	Present	Future	Age
------	---------	--------	-----

21. The busiest time of my life is probably in the

Past	Present	Future	Age
------	---------	--------	-----

22. The most religious time of my life is probably in the

Past	Present	Future	Age
------	---------	--------	-----

23. Most of my daydreams are about the

Past	Present	Future	Age
------	---------	--------	-----

24. My important decisions are usually based primarily on the

Past	Present	Future	Age
------	---------	--------	-----

25. I most often dream about the

Past	Present	Future	Age
------	---------	--------	-----

26. My most active period is probably in the

Past	Present	Future	Age
------	---------	--------	-----

27. My greatest concern over religious matters is probably in the

Past	Present	Future	Age
------	---------	--------	-----

28. Most of my fantasies are about the

Past	Present	Future	Age
------	---------	--------	-----

29. My plans are usually based principally on the

Past	Present	Future	Age
------	---------	--------	-----

30. Most of my dreams are usually about the

Past	Present	Future	Age
------	---------	--------	-----

Please list the three happiest experiences in your past life and indicate your approximate age at the time of each experience:

1.

2.

3.

Please list the three happiest experiences you expect during your future life and estimate your age at the time of each experience:

1.

2.

3.

Please list the three unhappiest experiences in your past life and indicate your approximate age at the time of each experience:

1.

2.

3.

Please list the three unhappiest experiences you expect during your future life and estimate your age at the time of each experience:

1.

2.

3.

SCY 111

Age of Experience Total

Experience	Age	Total
1. (item)	10	10
2. (item)	10	10
3. (item)	10	10
Total		30

SUBJECT DESCRIPTION

Name _____ Age _____ Sex _____ Race _____
 Education _____

SCORING SUMMARY

	Past	Present	Future	Totals
Positive (first 10 items)				10
Negative (second 10 items)				10
Neutral (third 10 items)	_____	_____	_____	<u>10</u> 30

Average years projected into future = $\frac{fa - nf(ca)}{nf} =$

Average years projected into past = $\frac{np(ca) - pa}{np} =$

Average age focus = $\frac{a}{30} =$

fa--future ages; pa--past ages; ca--chronological age;
 a--sum all ages recorded by S on 30 items.

nf--number of future items; np--number of past items.

ADMINISTRATION OF YUFIT'S TIME QUESTIONNAIRE (TQ)

The TQ can be administered verbally by the trained person or given as a written task while the trained examiner remains present, observes and records any comments or qualitative behavior. Verbal administration is usually recommended for very depressed patients, but in general, the written format is preferred, since the concurrent overt interaction with the examiner is minimized as involvement with the TQ takes place. Such overt interaction is likely to contaminate the externalized projections being sought.

No matter which format is used, the person is asked first to write his name, to enhance self-representation of the TQ responses, then to write in the date to indicate the accuracy of present-time orientation.

There is no time limit for the TQ, but the person should understand that the directions request responding with the "first feeling or thought," so that range of time to complete the form is ten to fifteen minutes, with an increase in the intensity of depression being a major component in lengthening the time. It is very unusual to have the administration take more than 25 minutes.

Any questions regarding the TQ items should be referred back to the respondent by either repeating the directions, or suggesting, "Answer in any way you wish; there are no right or wrong answers." The aim is to encourage freedom of response within the context of the directions.

Very few persons have difficulty in following these directions.

Verbalizations, excessively long reaction times to specific items, and unusual behavior should be recorded. An inquiry into any of the response may be conducted only after the TQ has been completed; these must be labeled as such.

Time Questionnaire Cover Sheet

Name (optional) **SAMPLE**Date **3-7-74**Sex: **(M)** F Birth Date **2-21-51** Age **23** Marital Status **S**Natl. Origin. **AMERICAN** Race **W** Religion **NONE****(Apt.)** Home Own **(Rent)** How long **6 mos.**

Age and sex of children —

Others living at home —

Year and make of car(s) **'69 Chevvy Bel Air**Your education **H.S.**

Spouse's education —

Your occupation **CONSTRUCTION**How long **6 mos.**

Spouse's occupation —

How long —

Interests and hobbies **TV, bowling**

Any serious physical illness(es)?

Yes _____ No **✓**

If yes, please specify:

Name SampleDate 3-7-74

TIME QUESTIONNAIRE

THE PRESENT

Answer the following questions as quickly and completely as you can. Respond to each item with your first thought or feeling.

Start 1:20Time: Finish 1:33

1. Right now I feel (circle one)

-2 Very good Fairly good Kind of depressed Very depressed
No feeling

2. I feel anxious (circle one)

-2 Sometimes Usually Almost Always

3. The thing(s) about myself that help most to keep me going

-4 _____ Ans.

4. F At times I feel like smashing things. Yes _____ No ✓

5. The amount of energy I've had lately is (circle one)

-2 Much more than usual Much less than usual Same as always

6. There are times when I feel like hurting myself. (circle one)

F Often Sometimes Never

7. There are times when I feel like hurting someone else. (circle one)

F Often Sometimes Never

8. I am always in complete control of my emotions.

F True ✓ False _____

9. My sexual feelings (circle one)

-3 Have increased lately Have decreased Same as always

10. My greatest weakness(es) being born
 -2
-
11. I'm very happy I'm fairly happy I'm Sad I'd rather
 -1 be dead.
12. I almost always I usually I can't usually
 trust myself trust myself trust myself
 -2 *em.*
 I almost never
 trust myself
13. I almost always I usually I'm usually
 trust others trust others mistrusting of others
 +1
 I can't usually trust anyone
14. I expect to succeed in things I do. (circle one)
 +2 Almost Always Usually Sometimes Never
15. It is hard for me to let others know what I really
 think and feel. (circle one)
 -3 Almost Always Usually Sometimes Never

THE FUTURE

Select a year in the future and answer the following questions AS IF YOU WERE LIVING IN THAT FUTURE YEAR NOW.

- 4 1. Future year selected 1975
- +1 2. Your age then 24
3. Marital Status:
☒ Single Engaged Married Separated Divorced Widow
 (widower) Remarried
- 0 4. Age and sex of children (if any) —
- 0 5. Do you live alone or with others? ALONE If with others, specify: _____
 Rent ☒ Own _____ City ☒ Suburb _____
- +1 6. Year and make of car(s) '69 Chevy
- +1/2 7. Describe your employment (or spouse's if you do not work)
PART TIME
- +1/2 8. What do you do in your spare time? WATCH TV
- 1 9. Are you busy most of the time? Yes ___ Sometimes ☒ No ___
10. How much have you changed?
 -1 Much Some ☒ A little No change
11. How much have people important to you changed?
 -2 Much Some A little ☒ No change
12. Have you achieved any of your goals? Specify: CAN'T
 -2 SAY
13. How well have things worked out?
 -2 Fine All right ☒ Not so well Not at all
14. Are you happy? _____
- 4

Omn.

15. If you have had therapy, did it help you?

-1 Much Some Little No help Worse No therapy

-2 16. Do you look forward to this future date? I don't know

17. Do you feel confident about these predictions?

-2 Yes, confident Possible but unlikely

No, not confident

THE PAST

Answer the following questions as quickly and completely as you can. Respond to each item with your first thought or feeling.

1. I think about the past (circle one)

+2 Very often Some Never

2. I feel guilty about some things I have done (circle one)

+2 Very often Some Never

3. A pleasant memory _____ Om.
-4 _____

4. I think most about the (circle one)

0 Past Present Future

5. I think least about the (circle one)

-2 Past Present Future

6. If you could choose to remain in the present, return to the past or jump ahead to the future, which would be your first choice (#1), your second choice (#2), and your last choice (#3)?

-2 Past 2 Present 1 Future 3

7. If I could be young again, I would do things differently. (circle one)

Most Some Few None

Explain: Go to college

Score Sheet for Time Questionnaire

Patient or Subject's Name (or ID#) SAMPLE
 Study Group _____

<u>Section I: Present</u>	<u>Section II: Future</u>	<u>Section III: Past</u>
1. -3	1. -4	1. +2
2. -2	2. +1	2. +2
3. -4 Om.	3.	3. -4 Om.
4. F	4. 0	4. 0
5. -2	5. 0	5. -2
6. F	6. +1	6. -2
7. F	7. + $\frac{1}{2}$	7. +1
8. F	8. + $\frac{1}{2}$	
9. -3	9. -1	
10. -2	10. -1	
11. -1	11. -2	
12. -2 Om.	12. -2	
13. +1	13. -2	
14. +2	14. -4 Om.	
15. -3	15. -1	
	16. -2	
	17. -2	
Total Positive: +3	Total Positive: +3	Total Positive: +5
Total Negative: -22	Total Negative: -21	Total Negative: -8
Total Section I: -19	Total Section II: -18	Total Section III: -3
TOTALS: TQ: -40 OM: 4 F: 4 B: 0 UNS:		
Number of years Projected: 1		

APPENDIX E

RATING SCALE FOR SERIOUSNESS OF SUICIDAL IDEATION

PATIENT _____

DATE _____

Please rate the above patient 0, 1, or 2 on the following categories;

1. REPORT OF INTENT TO MAKE AN ATTEMPT
 0. No attempt, or very slim chance
 1. Possibility of attempt, or will make an attempt under certain circumstances
 2. Definite intent to attempt suicide
2. SELF-REPORT OF INTENT TO DIE
 0. Patient wants to live
 1. Patient is not sure, does not care, or is waiting to see
 2. Patient definitely wants to die
3. REASONS FOR LIVING
 0. Patient reports good reasons for living.
 1. Patient reports reasons for dying equal or outweigh reasons for living
 2. Patient reports no reasons for living
4. FEELINGS ABOUT THE IDEATION
 0. Patient feels negative, frightened, or disturbed, or ignores the ideation
 1. Patient is in acute distress about his suicidal thoughts, or is ambivalent about them
 2. Patient accepts or welcomes his suicidal thoughts
5. URGENCY OF IDEATION
 0. Ideation is not urgent-i.e., patient can and does keep these thoughts under control
 1. Thoughts are urgent enough that patient is afraid he will be driven to do something he does not want to do, and/or wants somebody to control him.
 2. Thoughts are so urgent that patient no longer makes any attempt to keep them under control, and may in fact be in the process of carrying the thoughts into action
6. TIME COURSE OF IDEATION
 0. Isolated and fleeting thoughts occur at well-spaced intervals.
 1. Isolated thoughts occur frequently, or period of persistent thinking (hours or more) occur at well-spaced intervals; or thoughts are habitual
 2. Thoughts are current and persistent; occupying the patient's mind in a manner he finds unusual

APPROVAL SHEET

The dissertation submitted by Michael F. Flynn has been read by the following Committee:

Roderick Pugh, Ph.D.

Ronald Walker, Ph.D.

William Hunt, Ph.D.

The final copies have been examined by the director of the dissertation and the signature which appears below verifies the fact that any necessary changes have been incorporated and that the dissertation is now given final approval by the Committee with reference to content and form.

The dissertation is therefore accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy.

Date

May 3, 1974

Roderick Pugh

Director's Signature